

USER MANUAL OF SG-0007C SYSTEM

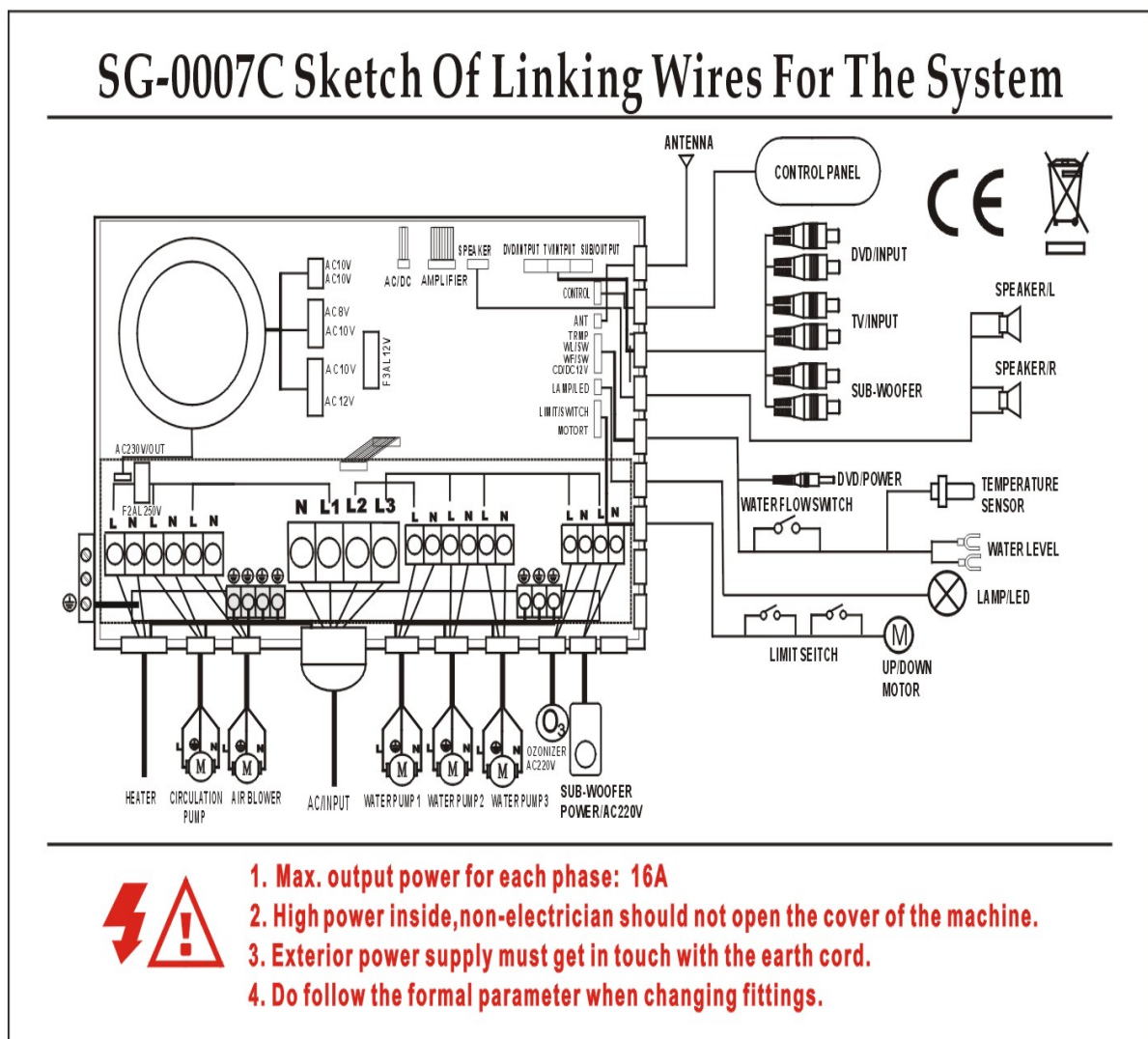
Carefully read all of the instructions before enjoying the spa.

WARNING: Operating the system without water will cause severe damage.

WARNING: SHOCK HAZARD! No user serviceable parts. Do not attempt to service this control. Contact your dealer or service center for assistance. Follow all user's manual power connection instructions. Installation must be performed by a certified licensed electrician and all grounding connections must be properly installed.

I. Installation

- 1) Please open the tub skirt according to instruction on it, connect the power supply correctly. If the power supply is 220V/50HZ, the wires serving as equipotential bonding conductors shall have a cross sectional area not less than $3 \times 10 \text{mm}^2$. If the power supply is 380V/50HZ, the wires serving as equipotential bonding conductors shall have a cross sectional area not less than $5 \times 6 \text{mm}^2$. The protection system should be based on a residual current device (RCD). Be sure that the earth cable connection is correctly made. The circuit diagram of hot tub is shown as following. (Fig 1)



(Fig 1)

- 2) Before infuse water into hot tub for using, please check the valve for each pipeline. The hot tub's drain valve must be in normal close while valves for other pipeline must be in normal open. After confirm









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everything is ok, fill the spa with cold water 4" to 6" (100 to 150mm) below the top edge of the spa and after that, put the cartridge filter or filter bag into the filter area. Do not overfill as the spa's water level will rise as each person enters the spa. Always keep the spa water level above the jet openings.






















II. Operation instruction



(Fig 2)


- **key (power key):** Connect the power supply, press  key, all the control systems are ready to run (indicator light is on), and the circulation and Ozone disinfection system go into working automatically (When first time connect the power supply and press  key, the panel will show E1, namely automatic system-checking for 60 seconds; and if the water temperature does not reach the pre-set one, the heating system will start to work in 10 seconds after automatic system-checking). The panel will display the symbols of circulation and Ozone (if the heating system is working, its symbol will be displayed on the panel too). Meanwhile, the panel will display the detected water temperature which will refresh once every 60 seconds.
- **PUMP key:** press  (PUMP1) key, its symbol will show on the panel, Pump1 will be activated; press  (PUMP2) key, its symbol will show on the panel, Pump2 will be activated (PUMP 2 is optional for some models); press  (PUMP3) key, its symbol will show on the panel, Pump3 will be activated (PUMP 2 is optional for some models).
- **REMARK:** There are some air valves on the topside of spas near the seats. They are to control the strength of hydro-massage in the seats respectively.
- **BUBBLE key:** Press  key, its symbol will show on the panel, the air massage system goes to work instantly.
- **O3 key (Ozone):** Press  key can turn on or off the Ozone disinfection system (Ozone and circulation pump work automatically when activating the spa).
- **LAMP key:** When the control systems are ready to work, first press  key, its symbol will show on the panel, the underwater lights are on, the color will change automatically; second press, the color will be fixed on a certain color; press for the third time to shut it off.


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- **TEMP key (need to be used together with   key):** Press  key, the panel will display the water temperature set last time and keep flashing: Press  key to adjust temperature to highest at 42°C; press  key to adjust temperature to lowest at 10°C. It will automatically store and return to show the current water temperature after flashing 3 seconds.
- **RADIO/AV key (Radio/DVD/Control and display of temperature):** When the control systems are ready to work, first press  key, it will go into Radio function, and the panel shows radio channel set last time (under Radio status, press   key to select pre-stored radio station); second press, it will go into TV function (this function is optional), the panel shows TV symbol; third press, it will go into DVD function (this function is optional), the panel shows symbols of DVD at the same time (Under DVD status, press   key to adjust the volume of DVD); press for the fourth time, the panel will show the detected water temperature.
- **TUN/VOL key (need to be used together with   key):** Under Radio status, first press  key, the panel will show 2-digit volume, press   can adjust volume upwards or downwards (the panel will automatically show radio frequency when stop adjusting for 3 seconds). Second press, the current frequency will flash, press   key to adjust the current frequency, it will store automatically after flashing 3 seconds. Third press, the panel will show radio channel, press   key to select pre-stored radio station (the panel will automatically show previous radio frequency when stop adjusting for 3 seconds). Long press for 5 seconds, the system will automatically search radio frequency again and store the searched frequency at different channel sequentially.
- **Heating system:** After the control systems are ready to work, the heater will start working 10 seconds after the circulation pump is activated unless the temperature sensor detect that the set temperature is lower than the detected one. When the water temperature reach set temperature, the heater will stop working automatically. When the water temperature is under 2°C of the preset one, the heater will be activated to work again.
REMARK: The heater will not be activated to work if there is not enough water flow trans-fluxing it.
- **Interlocked system between heater and pumps:** Long press  key again for 20 seconds, the system can be converted between interlock mode or non-interlock mode (the indicator light on  key shows **RED** under interlock mode; while it shows **GREEN** under non-interlock mode). When it is in interlock mode, the heater will stop when you press any key of pumps and bubble. This feature is to reduce the power needed for the spa so that it can match the power limit of some countries. In non-interlocked mode, the heater will keep running when the other pumps are activated unless the water temperature reaches the set temperature.
- **Temperature sensor's self-checking system:** When the panel shows EO which means the






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temperature sensor is disconnected, check the wiring of temperature sensor to see whether it is disconnected. When the panel shows E1 which means the temperature sensor is short-circuited, replace the temperature sensor with a new one. The heating system can not be activated under the above two situations.

- **Water-lacking protection system for circulation pump and heater:** In daily usage, the blockage of filtration medium (cartridge filter or filter bag) will occur. The severe blockage will lead to the intermittent lack of water for the filtration pump. When lack of water, the filtration pump and heater will stop working automatically. At this moment, the symbol of filtration pump  on control panel will flash unceasingly, which reminds the user that it is time to clean or replace the filtration medium.

After cleaning or replacing the filtration medium, press  several times so that it can evacuate the air inside the pipe until the filtration pump work normally.

- **Anti-freezing system:** After power on to enter standby status (the indicator light on  key flashes), the anti-freezing system will be activated instantly. The circulation pump and heating system will automatically stop at the default temperature of above 10°C. When the water temperature in the spa drops below 9°C, the circulation pump, heater and air blower will work automatically, Pump1 will automatically start to work in about 85 seconds; and it will stop after working about 85 seconds; then Pump 2 (if equipped) will start to work for about 85 seconds and stop; finally comes for Pump 3 (if equipped) working for about 85 seconds then stops. Pump1, Pump2 and Pump3 will continuously cycle among them. When the detected water temperature reaches 10°C, all the pumps and heater will stop working. When this system is running, the screen background light is on. When the water temperature reaches 10°C, the screen returns to the standby status.
- **Remark:** When enjoy the massage functions, in order to ensure the cleanness of water in the spa, please switch the spa into manual mode.
- **Automatic working mode:** (The factory-setting for the spa is automatic mode)

Long press  key for 3 seconds to enter automatic mode (the indicator light on  key will show **GREEN**). The circulation pump will start to run automatically for 60 minutes and then stops for 180 minutes. It will repeat the cycle continuously. During the running time,  key will show **GREEN**, and the panel will display “ON”, detected water temperature and the symbol of ozone alternately. The heater will go to work instantly if the water temperature is 2°C lower than the preset temperature. And its symbol will be displayed on the panel. During the stop running time,  key will show **GREEN**, and the panel will display “OFF” and detected water temperature alternately. When the water temperature is 2°C lower than the preset temperature, the circulation pump, ozone generator and heater will go to work instantly until it reaches the preset temperature. The keys 



  are non-functional keys, they act as indicating keys.

REMARK:

- If the spa is in automatic working mode, please don't turn off the spa when you don't use it and make sure to keep the spa always “on”.
- When enters into automatic mode, the filtration pump will be controlled by temperature. If the

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water temperature is lower than the preset one, the filtration pump and heater will work till the water temperature reaching the preset one. Then, the filtration pump will return to work for 1 hour and stop for 3 hours repeatedly. When quit from the automatic mode, the filtration pump won't controlled by temperature.

- Each time when turn on the spa, the system will go into the mode set last time. Long press  or  key (the indicator will show **GREEN**) to switch between automatic mode and manual mode.
- When enters into automatic mode:
 - A: The preset temperature is lower than the actual water temperature: only the filtration pump works while the heater does not work.
 - B: The preset temperature is higher than the actual water temperature: when under the state of "stop", if the water temperature has not reached the preset one, the filtration pump and heater will continue to work until the water temperature reaches the preset one. The Ozone will automatically work together with the filtration pump and heater in automatic mode.
- Control box environmental overheat protection function: When the inside temperature of the control box exceed an appropriate temperature, the control system will be shut down automatically. When the temperature returns to appropriate temperature, the indicator light of ON/OFF key flashes and the control panel recovers to standby status. Pressing ON/OFF, the control system can be used as normal.
- Water overheat protection function: When the water in spa reaches to 43°C , some parts stop working and "OH" shows on the screen. The above parts includes air blower, heater and all massage pumps. When the temperature down to 40°C, "OH" disappears. The functions can be used as normal by controlling the control panel.
- Screen protection function: The backlight of screen will be turned off after 1 minute switching on the control panel. The indicator lights of function keys on the panel stay lit.
- Time controls functions: The massage pump and air blower will be shut down automatically after running 1 hour. All indicator lights of functional keys lit. The heater and circulation pump are controled by temperature.
- Automatic cleaning function : Keep the spa power on. The system will do the clean automatically every 12 hours from shutting off the spa by pressing the ON/OFF key. All the equipments will go into working for one minute in turn and stop working automatically. Their order is air blower and circulation pump (working in the same time), PUMP1, PUMP2 and PUMP3, four cycles in total. After one equipment stopping, the next one will go into working automatically, until the last (fourth) cycle.

III. Instructions about the Combination Lock of SPA's Cover

- The preset number to open the combination lock at 0-0.
- You can reset the combination to your own number as follows: Open your combination lock. Use your ball point pen or other small strike to press in the reset button. Rotate the dial to the number that you want to set while keeping the reset button depressed. Release the reset button and reset the other side of the lock by the same way.

IV. Cleaning instructions

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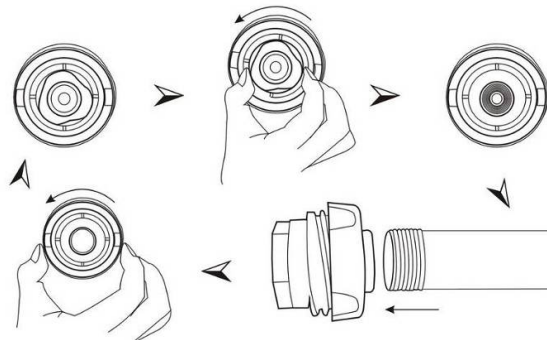
- Do not use cleaners or compounds containing harsh abrasives. Also, avoid using heavy-duty rubbing or buffing compounds. Use a soft liquid cleaner. A gentle mixture of any mild soap and warm water will generally dissipate most common soil from the surface. Using a soft cloth, wash the area to be cleaned and rinse. If stubborn dirt remains, as a stain embedded in the grain of the vinyl, use a soft brush, and if necessary, a touch of cleaning powder. In both situations, rinse and dry with a soft cloth.

V. Instructions to drain the water

- 1) Open the skirt panel of drain valve to open the red ball valve (the ball valve connecting to the black drain valve is closed when it is out of factory).



- 2) Take out the small plug and then connect a hose to it. Loosen the drain valve anticlockwise to open the drain valve and the water will come out. After finishing draining, screw down the drain valve clockwise again to close it.



Remark:

- 1) The remaining water at the bottom of spa needs to be emptied by hand and small cup.
- 2) If you need to dry the hot tub completely, please activate the air blower running for a while to drain the water in the air pipeline.